

Title (en)
Method and device for measurement of the nip force and/or nip pressure in a nip formed by a revolving roll or a band that is used in the manufacture of paper.

Title (de)
Verfahren und Vorrichtung zum Messen der Kraft und/oder des Druckes in einem Spalt gebildet durch eine sich drehende Walze oder ein Band bei der Papierherstellung.

Title (fr)
Procédé et dispositif pour mesurer la force et/ou la pression dans un interstice formé par un rouleau tournant ou un ruban utilisé dans la production du papier.

Publication
EP 0538221 A2 19930421 (EN)

Application
EP 92850232 A 19921002

Priority
FI 914829 A 19911014

Abstract (en)
The invention concerns a method and a device for measurement of the nip force and/or nip pressure in a nip (N) formed by a revolving roll or a band used in the manufacture of paper. In the method and in the device, a series of measurement detectors (20l...20n) is used, whose detectors (20) are placed across a considerable width of the paper web (W) in the transverse direction of the revolving roll (10) or the band. The measurement signals received from the different detectors (20) are passed to a switching unit (23), whose connectors (24l...24n) are controlled so that, through the switching unit (23), the signal of each measurement detector (20l...20n) is alternately connected to a telemeter transmitter (26) placed in connection with the revolving roll (10). By means of the telemeter transmitter (26), the series of measurement signals (Vin l...Vinn) are transmitted wirelessly to a stationary telemeter receiver (27) placed outside the revolving roll (10).

IPC 1-7
G01L 5/00

IPC 8 full level
G01L 5/00 (2006.01)

CPC (source: EP US)
D21F 3/06 (2013.01 - EP US); **G01L 5/0085** (2013.01 - EP US)

Citation (applicant)
• FI 76872 B 19880831 - VALMET PAPER MACHINERY INC [FI]
• US 4791863 A 19881220 - VAEHAETALO HARRI [FI]
• FI 82092 B 19900928 - VALMET PAPER MACHINERY INC [FI]
• US 5043046 A 19910827 - LAAPOTTI JORMA [FI]
• FI 81768 B 19900831 - VALMET PAPER MACHINERY INC [FI]
• FI 81770 B 19900831 - VALMET PAPER MACHINERY INC [FI]
• US 4921183 A 19900501 - SAUKKONEN SEPPO [FI], et al
• US 4883233 A 19891128 - SAUKKONEN SEPPO [FI], et al
• WO 9113337 A1 19910905 - BELOIT CORP [US]
• FI 914830 A 19930415 - VALMET PAPER MACHINERY INC [FI]

Cited by
EP2113608A3; EP1449959A3; EP1772266A3; EP0978589A3; EP1507040A1; CN1318691C; US5379652A; EP0588776A3; US2011301003A1; US8475347B2; US7276137B2; US6325323B1; US9745698B2; DE102007000794A1; US7406876B2; US6387214B1; US9080287B2; WO2009101251A3; WO2009043612A1; WO03027623A1; US9650744B2; US10221525B2; WO2008028516A1; WO2014177434A1

Designated contracting state (EPC)
AT DE FR GB IT SE

DOCDB simple family (publication)
EP 0538221 A2 19930421; **EP 0538221 A3 19931027**; **EP 0538221 B1 19970226**; AT E149247 T1 19970315; CA 2080390 A1 19930415; CA 2080390 C 19970318; DE 69217603 D1 19970403; DE 69217603 T2 19970626; FI 86771 B 19920630; FI 86771 C 19921012; FI 914829 A0 19911014; FI 914829 A 19920630; US 5383371 A 19950124

DOCDB simple family (application)
EP 92850232 A 19921002; AT 92850232 T 19921002; CA 2080390 A 19921013; DE 69217603 T 19921002; FI 914829 A 19911014; US 96072592 A 19921014